WHAT IS CLAIMED IS:

1. A flow rate measuring device comprising:

a sub-passage installed in a main passage through which a fluid flows; and

a detection element installed in the sub-passage and capable of measuring a flow rate of a gas flowing in a forward direction and a flow rate of a gas flowing in a backward direction;

wherein the sub-passage has an outlet opening in a radial direction of the main passage and a bent portion at least upstream of the detection element;

wherein a means is provided near the outlet of the sub-passage to introduce the backward flow of the main passage into the sub-passage through the outlet.

2. A flow rate measuring device according to claim 1, wherein the introduction means introduces the backward flow into the sub-passage through the outlet by a dynamic pressure generated by the backward flow.

3. A flow rate measuring device according to claim 1, wherein the sub-passage has the bent portion between the outlet and the detection element.

4. A flow rate measuring device according to claim 2, wherein the introducing means is a stepped portion whose side surface downstream of the outlet in the backward direction is set higher than its side surface upstream of the outlet in the backward direction.

5. A flow rate measuring device according to claim 4, wherein the introducing means is constructed to facilitate the introduction of the backward flow more than the forward flow.

6. A flow rate measuring device according to claim 5, wherein the introducing means blocks the forward flow from entering into the sub-passage through the outlet.

7. A flow rate measuring device according to claim 6, wherein the sub-passage is constructed of at least two members and the introducing means is formed on only one of the two members.

8. A flow rate measuring device according to claim 6, wherein the introducing means is formed in the main passage.

9. A flow rate measuring device according to claim 8, wherein a length of a part of the sub-passage from an inlet of the sub-passage to the detection element is almost equal to a length of another part of the sub-passage from the detection element to the outlet of the sub-passage.

10. A flow rate measuring device according to claim 9, wherein the outlet is formed at two locations, the detection element is formed on one surface of a substrate, and the introducing means is provided only near the outlet that is formed on the same side as the one surface of the substrate.

11. An internal combustion engine control system

comprising:

an internal combustion engine;

a flow rate measuring device claimed in any one of claims 1-9 and installed in an intake manifold of the internal combustion engine;

a fuel supply device to supply fuel to the internal combustion engine; and

a controller to control the fuel supply device based on a signal from the flow rate measuring device.